No.



8100019

TO ALE TO WHOM THESE PRESENTS SHALL COMES

Coker's Pedigreed Seed Company

Withgreas, there has been presented to the

±จึงจงงานจนานทอง «»ทั้ง เนียบทอนอนที่ปัญญาคนจ

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED NOVEL VARIETY OF SEXUALLY REPRODUCED PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS, FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW.

NOW, THEREFORE, THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS, HEIRS OR ASSIGNS OF THE SAID APPLI-CANT(S) FOR THE TERM OF eighteen YEARS FROM THE DATE OF THIS GRANT, SUBJECT TO THE PAYMENT OF THE REQUIRED FEES AND PERIODIC REPLENISHMENT OF VIABLE BASIC SEED OF THE VARIETY IN A PUBLIC REPOSITORY AS PROVIDED BY LAW, THE RIGHT TO EX-LIDE OTHERS FROM SELLING THE VARIETY, OR OFFERING IT FOR SALE, OR REPRODUCING IT, APORTING IT, OR EXPORTING IT, OR USING IT IN PRODUCING A HYBRID OR DIFFERENT

THEREFROM, TO THE EXTENT PROVIDED BY THE PLANT VARIETY PROTECTION ACT. NITED STATES SEED OF THIS VARIETY (1) SHALL BE SOLD BY VARIETY NAME ONLY AS CERTIFIED SEED AND (2) SHALL CONFORM TO THE NUMBER OF GENERATIONS THE OWNER OF THE RIGHTS. (84 STAT. 1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

COTTON

'Coken 3131'

In Lestimony Whereof, I have hereunto set my hand and caused the seal of the Elant Unriety Protection Office to be affixed at the City of Washington day of September the year of our Lord one thousand nine hundred and eighty-one.

UNITED STATES DEPARTME	KETING SERVICE	E		FORM APPROVED OMB NO. 40-R3822
APPLICATION FOR PLANT VARIE INSTRUCTIONS: See Reverse.		N CERTIFICATE		ant variety protection may ompleted application form
1a. TEMPORARY DESIGNATION OF VARIETY	1b. VARIETY NAM	E		IAL USE ONLY
Coker 73-113 &/or			PV NUMBER	3100019
Coker 3113	<u>Coker 3131</u>			
2. KIND NAME	3. GENUS AND SPE	CIES NAME	FILING DATE	TIME A.M.
Cotton	Gossypium h		11/17/80 FEE RECEIVED	2:30 (P.M.)
4. FAMILY NAME (BOTANICAL)	5, DATE OF DETER		\$ 500.00 \$ 250.00	11/17/80 8/7/81
Malvaceae	February, 19	978	Ψ	
6. NAME OF APPLICANT(S)	7. ADDRESS (Stree Code) 900 Darlingto	t and No. or R.F.D. No., on Highway	City, State, and ZIP	8. TELEPHONE AREA CODE AND NUMBER
Coker's Pedigreed Seed Co.	1	40, Hartsville, S	S. C. 29550	803-332-8151
9. IF THE NAMED APPLICANT IS NOT A PI ORGANIZATION: (Corporation, partnersh		10. IF INCORPORAT DATE OF INCOR	ED, GIVE STATE AND PORATION	11. DATE OF INCOR- PORATION
Corporation	•	South Caro	lina	June 12, 1918
12. NAME AND MAILING ADDRESS OF APP ALL PAPERS:	LICANT REPRESENTA	ATIVE(S), IF ANY, TO S	SERVE IN THIS APPLI	CATION AND RECEIVE
Henry W. Webb	Coker's Pedi	greed Seed Com	pany	
Cotton Department		10, Hartsville, S		29550
13. CHECK BOX BELOW FOR EACH ATTACI			- Cubi Cultura	
13A. Exhibit A, Origin and Bre	-	Variety (See Section 5	52 of the Plant Variet	y Protection Act.)
🛚 13B. Exhibit B, Novelty Staten	ient.		· .	
🔀 13C. Exhibit C, Objective Descr	ription of the Variety	(Request form from	Plant Variety Protect	tion Office.
13D. Exhibit D, Additional Des	•		- ······ / • ····· / • ···· / • ···· / • ···· / • ···· / • ···· / • ···· / • ·· / • ··· / • ··· / • ·· / • ··· / • ··· / • ··· / • ·· / • ·· / • ··· / • ··· / • ··· /	,
14a. DOES THE APPLICANT(S) SPECIFY THA SEED? (See Section 83(a). (If "Yes," answ			RIETY NAME ONLY AS	S A CLASS OF CERTIFIED
14b. DOES THE APPLICANT(S) SPECIFY THA LIMITED AS TO NUMBER OF GENERAT				RATIONS OF PRODUC-
X YES NO	IONS	TION BEYOND B	X REGISTERED	1-Year
15a. DID THE APPLICANT(S) FILE FOR PROT name of countries and dates,)	ECTION OF THIS VAI	RIETY IN OTHER COU	NTRIES? TYES	NO (If "Yes," give
15b. HAVE RIGHTS BEEN GRANTED THIS VA	ARIETY IN OTHER CO	UNTRIES? YES	X NO (If "Yes,"	give name of countries
arm autos)				
	•			
16. DOES THE APPLICANT(S) AGREE TO TH	E PUBLICATION OF H	IIS/HER (THEIR) NAMI	E(S) AND ADDRESS IN	THE OFFICIAL
17. The applicant(s) declare(s) that a viable replenished upon request in accordance	e sample of basic seed e with such regulation	d of this variety will b	e furnished with the	application and will be
The undersigned applicant(s) is (are) the	•			1. 18
variety is distinct, uniform, and stable 42 of the Plant Variety Act.	re owner(s) or this se	xuany reproduced no	ver plant variety, and	
	as required in Section	n 41, and is entitled to	o protection under th	ne provisions of Section
Applicant(s) is (are) informed that fals	and the second			e provisions of Section
	and the second			e provisions of Section
Applicant(s) is (are) informed that fals	and the second	in can jeopardize proj	tection and result in	e provisions of Section enalties. CANT
Applicant(s) is (are) informed that fals November 6, 1980	and the second	in can jeopardize proj	tection and result in	e provisions of Section enalties. CANT

(DATE)

INSTRUCTIONS

0861 2 T AON

GENERAL: Send an original copy of the application and exhibits, at least 2,500 viable seeds, and \$500 fee (\$250 filing fee and \$250 examination fee) to U.S. Dept. of Agriculture, Agricultural Marketing Service, Livestock, Poultry, Grain and Seed Division, Plant Variety Protection Office, National Agricultural Library Building, Beltsville, Maryland 20705. (See section 180.175 of the Regulations and Rules of Practice.) Retain one copy for your files. All items on the face of the form are self-explanatory unless noted below.

ITEM

- Give the date the applicant determined that he had a new variety based on (1) the definition in section 41(a) of the Act and (2) the date a decision was made to increase the seed.
- Give: (1) the genealogy, including public and commercial varieties, lines, or clones used, and the breeding method; (2) the details of subsequent stages of selection and multiplication; (3) the type and frequency of variants during reproduction and multiplication and state how these variants may be identified and (4) evidence of uniformity and stability.
- Give a summary statement of the variety's novelty. Clearly state how this novel variety may be distinguished from all other varieties in the same crop. If the new variety most closely resembles one or a group of related varieties:

 (1) identify these varieties and state all differences objectively; (2) attach statistical data for characters expressed numerically and demonstrate that these differences are significant; and (3) submit, if helpful, seed and plant specimens or photographs of seed and plant comparisons clearly indicating novelty.
- Fill in the Exhibit C, Objective Description form, for all characteristics for which you have adequate data.
- Describe any additional characteristics that are not described, or whose description cannot be accurately conveyed in Exhibit C. Use comparative varieties as is necessary to reveal more accurately the description of characteristics that are difficult to describe, such as, plant habit, plant color, disease resistance, etc.
- If "YES" is specified (seed of this variety be sold by variety name only as a class of certified seed) the applicant may NOT reverse his affirmative decision after the variety has either been sold and so labeled, his decision published, or the certificate has been issued. However, if the applicant specified "NO," he may change his choice. (See section 180.16 of the Regulations and Rules of Practice.)
- See section 42 of the Plant Variety Protection Act and section 180.7 of the Regulations and Rules of Practice.

EXHIBIT A, ORIGIN AND BREEDING HISTORY OF COTTON VARIETY - COKER 3131.

Stage	<u>Year</u>	Breeding Procedures
1	1968	Coker Cross No. 6827: Coker 310 X Coker 5114, 67-109. Coker 5114, 67-109 was a rather distinctive and unusual experimental line characterized by High Yield potential and relatively low fiber quality.
2	1968-69	Winter generation increase, Iguala, Mexico, produced ${\rm F}_2$ seed.
3	1969-73	Pedigree selection in the F ₃ population in 1970 and subsequent plant to row progenies, resulted in the identification of the experimental strain designated Coker 73-113 in 1973, also identified as Coker 3113 in subsequent trials.
4	1973-76	Coker 3113 evaluated in Coker's replicated trials and disease screening nursuries in S.C., Miss. and Texas. Appropriate seed increases grown on Coker farms in S.C. under supervision of Coker research and production departments. Varietal maintenance continued within this material, with all stages subjected to critical evaluation for overall performance and varietal purity.
5	1977-79	Continued beltwide evaluation to include Arizona and San Joaquin Valley, of California. A limited quantity of Breeder Seed of Coker 3113 was grown at Hartsville, S.C. in 1978 and 1979.
6	1980	Produced Foundation seed of Coker 3113 in West Texas. Concurrently all maintenance and evaluation stages continued for future production of appropriate classes of seed. The continuing examination of maintenance lines in plant to row progenies, performance trials and various stages of seed increase confirm a high degree of genetic uniformity in all generations.
7	1981	Anticipate marketing a limited quantity of Coker 3113, now formally assigned the varietal designation Coker 3131 for marketing. Variety maintenance and seed production efforts continuing.

Variants: Variants in Coker 3131 are minimal. No significant morphological variants have been observed.

EXHIBIT A.

Application of Plant Variety Protection
Coker 3131 Cotton Variety
Coker's Pedigreed Seed Company
November 6, 1980

Supplement to Exhibit "A" Cotton Variety, Coker 3131

Subject: Varietal Stability

Coker 3131 has exhibited a high degree of genetic stability during years of performance evaluation, seed increase and progeny selection.

During these stages we have not observed significant variants. This variety has met all purity and uniformity requirements of our Production Dept. as well as those of the S.C. and Texas Seed Certification agencies.

Mululett

13 B. EXHIBIT B, NOVELTY STATEMENT OF COTTON VARIETY - COKER 3131

Novelty of Coker 3131, is based on the following unique character(s):

Coker 3131 most closely resembles Coker 310 except that it is characterized by a significant reduction in fiber length and fiber strength, and an increase in gin turnout or lint percentage.

See Attached Data.

Exhibit B Application for Plant Variety Protection Coker 3131 Cotton Variety Coker's Pedigreed Seed Company November 6, 1980

COKER'S PEDIGREED SEED COMPANY HARTSVILLE, S.C. COTTON DIVISION

SUPPLEMENT TO EXHIBIT B

NOVELTY, COTTON VARIETY, COKER 3131

LINT YIELDS AND GIN TURNOUT, 2 COKER COTTONS, LUBBOCK, TX. 1975-1979 (Performance Trails conducted by Coker's Pedigreed Seed Co.)

Gin 1/	$\begin{matrix} \textbf{Turnout} \\ \% \end{matrix}$	24.1	25.1	
Ą	1975 1976 1977 1978 1979 Average	588	712	
lbs/	1979	437	529	
lds:	1978	635	733	•
ıt Yie	1977	770	973	
Lir	1976	639	767	
	1975	469	559	
	VARIETY	Coker 310	Coker 3131	

1/ Gin Turnout determined from Stripper harvesting.

Tests conducted at two Lubbock locations each year,

SUPPLEMENT TO EXHIBIT B NOVELTY, COTTON VARIETY COKER 3131

COMPARISONS OF NOVELTY TRAITS: COKER 310 AND COKER 3131

II. Mississippi Data

A. Gin Turnout - %

	1975	1977	1978	1979	Average
Variety	AB	A B	A B	A B	8 Tests
Coker 310	38.8 40.6	36.1 35.8	35.7 36.0	E-	36,6
Coker 3131	38.6 40.0	37.8 37.5	36,6 37,2	37,136,6	
L.S.D05	. *				
.01	:				1.06
C.V. %					1.9%

B. Fibrograph; 2.5% Span Length - Ins.

	1975	1977	1978	1979	Average
Variety	A B	A B	AB	A B	7 Tests
Coker 310	1.20 1.21	1.26 1.25	1,19	1.22 1.21	l
Coker 3131	1.12 1.13	1.18 1.15	1.11	1, 15 1, 17	
L.S.D05			-		0.015
.01					0.021
C.V. %					1.1%

C. Stelometer: Grams per Tex.

	1975	1977	1978	1979	Average
Variety	A B	A B	A B	AB	6 Tests
Coker 310	23.5 24.3	24.0	26.0	24.6 25.8	24.7
Coker 3131	21.5 22.9	23.2	23.6	23, 1, 23, 3	
L.S.D05				ı	0.59
.01					0.83
C.V. %					1.9%

Actually each letter A or B represents 2-3 replicated individual trials. Thus the 8Test average may represent up to 24 replicated tests. Note data for several MS, tests are missing. Tests identified as "A" & "B" indicate specific varietal groups at indicated region and year.

COKER'S PEDIGREED SEED COMPANY

SUPPLEMENT TO EXHIBIT B NOVELTY, COTTON VARIETY COKER 3131

COMPARISONS OF NOVELTY TRAITS: COKER 310 AND COKER 3131

I. South Carolina Data

A. Gin Turnout - %

	1975	75	1976	1978	1979	Average
Variety	A	В	A B	A B	A B	8 Tests
Coker 310	40.5	10.5 39.5	37.4 37.4	38,8 38,7	37.5 37.5	38.4
Coker 3131	40.8	40.8 40.3	38.5 38.4	41.9 41.2	38.6 39.3	39.9
L.S.D05	٠	: :				0.71
.01	:			:		0.98
C.V. %	-					1.7%

B. Fibrograph; 2.5% Span Length - Ins.

	1975	1976	1978	1979	Average
Variety	A B	A B	A B	A B	8 Tests
Coker 310	1, 18 1, 16	1.221.24	1.22 1.19	1.18 1.18	1,20
Coker 3131	1,101,09	1,16 1,17	1,13 1,13	1, 13 1, 13	1, 13
L.S.D05					0.011
.01		-			0.015
C.V. %		i			0.86%

C. Stelometer; Grams per Tex.

	1975	1976	1978	1979	Average
Variety	A B	A B	A B	A B	8 Tests
Coker 310	22,70 23,65	24.95 24.05	25.40 24.90	23.50 25.70 24.36	24.36
Coker 3131	21.80 22,00	22,90 21,75	21,50 23,50	22,30 22,70 22,31	22.31
L.S.D05					0.75
.01			ż		1.04
C.V. %		:			3.0%

Actually each letter A or B represents 2-3 replicated individual trials. Thus the 8 Test average Tests identified as "A" & "B" indicate specific varietal groups at indicated region and year. may represent up to 24 replicated tests.

EXHIBIT C

(Cotton)

FORM GR-470-8 (10-2-72)

AGRICULTURAL MARKETING SERVICE

GRAIN DIVISION
HYATTSVILLE, MARYLAND 20782

OBJECTIVE DESCRIPTION OF VARIETY

COTTON (GOSSYPIUM SPP.)

NAME OF APPLICANT(S)	FOR OFFICIAL USE ONLY
Coker's Pedigreed Seed Company	PVPO NUMBER
ADDRESS (Street and No. or R.F.D. No., City, State, and ZIP Code)	8100019
P. O. Box 340	VARIETY NAME OR TEMPORARY DESIGNATION
Hartsville, South Carolina 29550	Coker 3131
Place the appropriate number that describes the varietal character of this variety Place a zero in first box (e.g. 0 8 9 or 0 9) when number is either 99 or 1	
1. SPECIES:	
1 1 = GOSSYPIUM HIRSUTUM 2 = GOSSYPIUM BARBADENSE	
2. AREA(S) OF ADAPTION (0 = Not Tented, 1 = Not Adapted, 2 = Adapted):	
2 EASTERN 2 DELTA 2 CENTRAL 2	HIGH PLAINS 2 EL PASO AREA
0 WESTERN LOW HOT VALLEYS 2 SAN JOAQUIN	OTHER (Specify)
3. MATURITY (50% Open Boll):	
0 0 NO. OF DAYS BARLIER THAN 1	2 = DELTAPINE 16 3 = STONEVILLE 213
Not Significant 4 = PAYMASTER 19	1 5 = ACALA 1517-70 6 = ACALA SJ-1
0 2 NO. OF DAYS LATER THAN 1 7 = LANKART 57	8 = OTHER (Specify)
4. PLANT HABIT:	1 = FOLIAGE SPARSE 2 = DENSE
2 1 = SPREADING 2 = INTERMEDIATE 3 = COMPACT 3	. I
5. PLANT HEIGHT:	
O O CM. SHORTER THAN	2 = DELTAPINE 16 3 = STONEVILLE 213
Not Significant 4 = PAYMASTER 11	1 5 = ACALA 1517-70 6 = ACALA SJ-1
0 0 CM. TALLER THAN 1 7 = LANKART 57	8 = OTHER (Specify)
8. MAIN STEM:	·
3 1 = LAX 2 = ASCENDING 3 = ERECT - FRUITING BRANCH 0	6 (from cotyledonary node)
7. LEAF: 8. LEAF PUBESCENSE: 1 = GL	ABROUS (HAIRS AS SPARSE AS D ₂ SMOOTH)) 3 = PUBESCENT (STONEVILLE 213)
WIDEST LEAVES 1 0 2 - SMOOTH CEAT TOEL TAFINE SMOOTH CEAF	HER (Specify)
9. LEAF COLOR: 1 = VIRESCENT YELLOW 2 = LIGHT GREEN 3 = DARK GREEN (Acc	(la-442) 4 ≈ RED
3 1 = VIRESCENT YELLOW 2 = LIGHT GREEN 3 = DARK GREEN (According to 1) 3 = DARK GREEN (According to 2) 5 = OTHER (Specify)	110-442) 4 - REU
10. LEAF TYPE:	
1 = NORMAL 2 = OKRA 3 = SUPER OKRA 4 = OTHER (Specify)	
11. FLOWER:	
2 I = NECTARILESS 2 = NECTARIED	
Petals: 1 = CREAM 2 = YELLOW 3 Pollen: 1 = CREAM 2	= YELLOW 3=Mixed
12. FRUITING BRANCH TYPE:	
3 1 = CLUSTER 2 = SHORT 3 = NORMAL 3 1 = DETERMINATE 2 =	INDETERMINATE 3=Intermediate
13. GOSSYPOL CONDITION:] = NORMAL BUD GOSSYPOL
1 = GLANDLESS 2 = REDUCE D GLANDS 3 = NORMAL GLANDS 1 = OTHER (Specify) 1	2 = HIGH BUD GOSSYPOL
14. SEEDS:	REGG 35) 2 = MODERATE (DPL-16)
+ O I SEED INDEX	CALA SJ-1) 4 = OTHER (Specify)

15. SOLLS: 1 = 3.4	FORM GR-470-8 (REVERSE)
2 Locales: 2 = 4.5	
1 Pitted: 2 = PINELY 3 - GAMS SEED COTTON PER BOLL 3 Type: 2 = STORM RESISTANT (LANKART 57) 3 Shape: 2 = ENDADER AT MIDDLE 3 Type: 2 = STORM RESISTANT (LANKART 57) 3 Shape: 2 = LENGTH = WIDTH 2 = LENGTH = WIDTH 3 = LENGTH > WIDTH 16. BRACTEOLES: 3 Breodth: 1 = LENGTH < WIDTH 2 = LENGTH = WIDTH 3 = LENGTH > WIDTH 1 Toeth: 1 = PINE 2 = COURSE 3 TOETH: 1 = 3.4 2 = 5.7 3 = 8.10 17. YIELD: Compared to- PENCENT LESS THAN	1
1	1 Pitted: 2 = FINELY GRAMS SEED COTTON 2 = BROADER AT MIDDLE
3 Brooth: 1 = LENGTH < WIDTH 2 = LENGTH = WIDTH 3 = LENGTH > WIDTH 1 Teeth: 1 = FINE 2 = COURSE 3 Teeth: 1 = 3.4 2 = 5.7 3 = 8.10 4 = OTHER (Specify) 17. YIELD: Composed to PERCENT LESS THAN	3 Type: 2 = STORM RESISTANT (LANKART 57) 3 Shape: 2 = LENGTH = WIDTH 2 = LENGTH = WIDTH
Teeth: 1 = FINE 2 = COURSE 3 Teeth: 1 = 3.4 2 = 5.7 3 = 8-10 4 = OTHER (Specify) 17. YIELD: Compared to PERCENT LESS THAN 1	16. BRACTEOLES:
Teeth: 1 = FINE 2 = COURSE 3 Teeth: 1 = 3.4 2 = 5.7 3 = 8-10 4 = OTHER (Specify) 17. YIELD: Compared to PERCENT LESS THAN 1	2 P 1 = LENGTH < WIDTH 2 = LENGTH = WIDTH 3 = LENGTH > WIDTH
1 = COKER 310 2 = DELTAPINE 16 3 = STONEVILLE 213	Teeth: 1 = 3-4 2 = 5-7 3 = 8-10
COKER 310 2 - DELTAPINE 16 3 - STONEVILLE 213	17. YIELD: Compared to—
1 0 0 PERCENT MORE THAN	PERCENT LESS THAN = COKER 310 2 = DELTAPINE 16 3 = STONEVILLE 213
D S 3 SPAN LENGTH 50% MEAN*-LENGTH 3 4 STAPLE LENGTH 32nd INCHES UNIFORMITY RATIO (MEAN/U.H.M.) 19. FIBER STRENGTH AND ELONGATION: 0 7 9 1.000 P.S.I. 0 7 9 ELONGATION E, 10. DISEASE: (0 = Not Tested, 1 = Susceptible, 2 = Resistant) 3 FUSARIUM WILT 3 ROOT KNOT NEMATORE 1 BACTERIAL BLIGHT (Race 2) 1 BACTERIAL BLIGHT (Race 2) 1 BACTERIAL BLIGHT (Race 2) 1 BACTERIAL DATE OTHER (Specify) 2 DISEASE: (0 = Not Tested, 1 = Susceptible, 2 = Resistant) 2 DISEASE: (0 = Not Tested, 1 = Susceptible, 2 = Resistant) 1 BACTERIAL BLIGHT (Race 2) 1 BACTERIAL BLIGHT (Race 2) 1 BACTERIAL DATE OTHER (Specify) 2 DISEASE: (0 = Not Tested, 1 = Susceptible, 2 = Resistant) 1 BACTERIAL DATE OTHER (Specify) 2 DISEASE: (0 = Not Tested, 1 = Susceptible, 2 = Resistant) 1 FLEAHOPPER 1 LEAFWORM 1 FALL ARMYWORM 1 SPIDERMITE 1 SPIDERMITE	Mid South & Central Region
MEAN*LENGTH 3 4 STAPLE LENGTH 32nd INCHES	18. FIBER LENGTH (Complete one or more of the following and give the means):
UNIFORMITY RATIO (MEAN/U.H.M.) 19. FIBER STRENGTH AND ELONGATION: 0 7 9 1,000 p.s.l. 0 7 9 1,000 p.s.l. 10 7 9 1,000 p.s.l. 20. DISEASE: (0 = Not Tested, 1 = Susceptible, 2 = Resistant) 3 FUSARIUM WILT 3 ROOT KNOT NEMATODE 1 BACTERIAL BLIGHT (Race 2) 1 ASCOCHYTA BLIGHT (Race 2) 1 ANTHRACNOSE 1 APHID 1 FLEAHOPPER 1 LEAFWORM 1 SPIDERMITE 1 STILOMETER TO 2 2 3 STILOMETER TO 2 2 1 3 STILOMETER TO 3 PHYMATOTRICHUM ROOT ROT 1 BACTERIAL BLIGHT (Race 1) 2 PHYMATOTRICHUM ROOT ROT 3 OTHER (Specify) 2 STINSECT: (0 = Not Tested, 1 = Susceptible, 2 = Resistant) 1 FLEAHOPPER 1 LEAFWORM 1 FALL ARMYWORM 0 GRASSHOPPER 1 LYGUS 1 PINK BOLLWORM	0 5 3 SPAN LENGTH 50% 1 1 3 SPAN LENGTH 2.5% - L _ U.H.M. LENGTH
19. FIBER STRENGTH AND ELONGATION: 0 7 9 1,000 p.s.i. 0 7 9 1,000 p.s.i. 1 MICRONAIRE READING YARN STRENGTH (Give test method) 2 2 3 STILOMETER To 2 PARN STRENGTH (Five test method) 2 2 3 STILOMETER To 2 PARN STRENGTH (Five test method) 3 STILOMETER To 2 PARN STRENGTH (Five test method) 1 BACTERIAL 3 VERTICILLIUM 3 FUSARIUM WILT 3 ROOT KNOT NEMATODE 1 BACTERIAL BLIGHT (Race 1) 1 BACTERIAL BLIGHT (Race 2) 4 A5 1 MICRONAIRE READING 3 FUSARIUM WILT 3 ROOT KNOT NEMATODE 1 BACTERIAL BLIGHT (Race 1) 4 A5 1 MICRONAIRE READING 1 BACTERIAL BLIGHT (Race 2) 4 A5 1 MICRONAIRE READING 3 STILOMETER To 2 PARN STRENGTH (Give test method) 2 2 3 STILOMETER To 2 PARN STRENGTH (Give test method) 2 2 3 STILOMETER To 2 PARN STRENGTH (Give test method) 2 2 3 STILOMETER To 2 PARN STRENGTH (Give test method) 2 2 3 STILOMETER To 2 PARN STRENGTH (Give test method) 2 2 3 STILOMETER To 2 PARN STRENGTH (Give test method) 2 2 3 STILOMETER To 2 PARN STRENGTH (Give test method) 2 2 3 STILOMETER To 2 PARN STRENGTH (Give test method) 2 2 3 STILOMETER To 2 PARN STRENGTH (Give test method) 3 FUSARIUM WILT 3 ROOT KNOT NEMATODE 1 BLIGHT (Race 2) 4 A5 1 PARN STRENGTH (Give test method) 2 2 3 STILOMETER To 2 PARN STRENGTH (Give test method) 4 A5 1 PARN STRENGTH (Give test method) 5 POLOMETER To 2 PARN STRENGTH (Give test method) 6 PARN STRENGTH (Give test method) 7 DATE TO 2 PARN STRENGTH (Give test method) 8 STILOMETER To 2 PARN STRENGTH (Give test method) 9 PARN STRENGTH (Give test method)	MEAN*LENGTH 3 4 STAPLE LENGTH 32nd INCHES
0 7 9 1,000 P.S.I. 1 MICRONAIRE READING YARN STRENGTH (Give test method) 2 2 3 STILOMETER TO 2 DISEASE: (0 = Not Tested, 1 = Susceptible, 2 = Resistant) 3 FUSARIUM WILT 3 ROOT KNOT NEMATODE 1 BACTERIAL BLIGHT (Race 2) 0 ASCOCHYTA D PHYMATOTRICHUM ROOT ROT 0 ANTHRACHOSE 0 RUST 0 OTHER (Specify) 1 BOLL WEEVIL 1 APHID 1 FLEAHOPPER 1 LEAFWORM 0 STINKBUG 1 THRIP 1 CUTWORM 1 SPIDERMITE	- UNIFORMITY RATIO (MEAN/U.H.M.) 4 7 UNIFORMITY INDEX (50% SPAN/2.5% SPAN)
4 A5 1 MICRONAIRE READING	19. FIBER STRENGTH AND ELONGATION:
4 5 1 MICRONAIRE READING 2 2 3 STILOMETER T1 20. DISEASE: (0 = Not Tested, 1 = Susceptible, 2 = Resistant) 3=Tolerant 3 VERTICILLIUM 3 FUSARIUM WILT 3 ROOT KNOT NEMATODE 1 BACTERIAL BLIGHT (Race 1) 1 BACTERIAL BLIGHT (Race 2) 0 ASCOCHYTA DIGHT ROOT ROT DIGHT ROOT ROT OTHER (Specify) 21. INSECT: (0 = Not Tested, 1 = Susceptible, 2 = Resistant) 1 BOLL WEEVIL 1 APHID 1 FLEAHOPPER 1 LEAFWORM 0 GRASSHOPPER 1 LYGUS 1 SPIDERMITE	(V) A S
3 VERTICILLIUM WILT 3 FUSARIUM WILT 3 ROOT KNOT NEMATODE 1 BACTERIAL BLIGHT (Race 1) 1 BACTERIAL BLIGHT (Race 2) 0 ASCOCHYTA BLIGHT 0 PHYMATOTRICHUM ROOT ROT 0 PHIZOCTONIA O ANTHRACNOSE 0 RUST 0 OTHER (Specify) 21. INSECT: (0 = Not Tested, 1 = Susceptible, 2 = Resistant) 1 BOLL WEEVIL 1 APHID 1 FLEAHOPPER 1 LEAFWORM 0 GRASSHOPPER 1 LYGUS 1 PINK BOLLWORM 0 STINKBUG 1 THRIP 1 CUTWORM 1 SPIDERMITE	
3 FUSARIUM WILT 3 NEMATODE 1 BLIGHT (Race D) 1 BACTERIAL BLIGHT (Race D) 1 BACTERIAL BLIGHT (Race D) 1 BLIGHT (Race D) 2 NEMATOTRICHUM ROOT ROT 2 NEMATOTRICHUM ROOT ROT 2 NEMATOTRICHUM ROOT ROT 3 NEMATODE 1 BLIGHT (Race D) 2 PHYMATOTRICHUM ROOT ROT 4 O PHYMATOTRICHUM ROOT ROT 5 PHYMATOTRICHUM ROOT ROT 6 PHYMATOTRICHUM ROOT ROT 6 PHYMATOTRICHUM ROOT ROT 6 PHYMATOTRICHUM ROOT ROT 7 PHYMATOTRICHUM ROOT ROT 8 PHYMATOTRICHUM ROOT ROT ROT ROT ROT ROT ROT ROT ROT RO	20. DISEASE: (0 = Not Tested, 1 = Susceptible, 2 = Resistant) 3=Tolerant
1 BLIGHT (Race 2) 0 BLIGHT 0 ROOT ROT 0 O ANTHRACNOSE 0 RUST OTHER (Specify) 21. INSECT: (0 = Not Tested, 1 = Susceptible, 2 = Resistant) 1 BOLL WEEVIL 1 APHID 1 FLEAHOPPER 1 LEAFWORM 1 FALL ARMYWORM 0 GRASSHOPPER 1 LYGUS 1 PINK BOLLWORM O STINKBUG 1 THRIP 1 CUTWORM 1 SPIDERMITE	1 9 1 FUSARIUM WILL 1 9 1 TITLE 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
21. INSECT: (0 = Not Tested, 1 = Susceptible, 2 = Resistant) 1 BOLL WEEVIL 1 APHID 1 FLEAHOPPER 1 LEAFWORM 1 FALL ARMYWORM 0 GRASSHOPPER 1 LYGUS 1 PINK BOLLWORM 1 SPIDERMITE	1 BACTERIOL 0 BLIGHT 0 BOOT BOT
1 BOLL WEEVIL 1 APHID 1 FLEAHOPPER 1 LEAFWORM 1 FALL ARMYWORM 0 GRASSHOPPER 1 LYGUS 1 PINK BOLLWORM 0 STINKBUG 1 THRIP 1 CUTWORM 1 SPIDERMITE	0 ANTHRACNOSE 0 RUST OTHER (Specify)
1 BOLL WEEVIL 1 APHID 1 FLEAHOPPER 1 LEAFWORM 1 FALL ARMYWORM 0 GRASSHOPPER 1 LYGUS 1 PINK BOLLWORM 0 STINKBUG 1 THRIP 1 CUTWORM 1 SPIDERMITE	21. INSECT: (0 = Not Tested, 1 = Susceptible, 2 = Resistant)
0 STINKBUG 1 THRIP 1 CUTWORM 1 SPIDERMITE	
	1 FALL ARMYWORM 0 GRASSHOPPER 1 LYGUS 1 PINK BOLLWORM
OTHER (Specify)	0 STINKBUG 1 THRIP 1 CUTWORM 1 SPIDERMITE
	OTHER (Specify)

REFERENCES: The following publications may be used as a reference aid for the standardization of terms and procedures for completing this form:

(1) Brown, Harry B., and J. O. Ware, 1958, Cotton, McGraw-Hill Book Company, Inc., New York.

(2) Lewis, C. F., and H. H. Ramey, Jr., 1971, 1970 Regional Cotton Variety Tests, ARS 34-130, United States Department of Agriculture.

COLORS: Nickerson's or any recognized color fan may be used to determine flower color of the described variety.

ASSIGNMENT OF PLANT VARIETY PROTECTION CERTIFICATES

WHEREAS, COKER'S PEDIGREED SEED COMPANY, a South Carolina corporation ("Coker's"), having its offices at 900 Darlington Highway, Hartsville, South Carolina 29550, has adopted and used and is the sole and exclusive owner of certain United States Plant Variety Protection Certificates and similar rights under laws of countries other than the United States as listed in Exhibit A hereto:

WHEREAS, COKER'S PEDIGREED SEED CO. and NORTHRUP KING CO., a Delaware corporation ("NK"), have entered into an Asset Purchase Agreement, dated July 20, 1988, providing for the purchase and sale of substantially all of the assets and business of Coker's and the assumption of certain of Coker's liabilities and obligations by NK; and

WHEREAS, NK desires to acquire the right, title and interest in, to and under the Plant Variety Protection Certificates listed on Exhibit A hereto and the pending applications hereto (collectively, the "Plant Variety Protection Certificates").

NOW, THEREFORE, for good and valuable consideration, receipt of which is hereby acknowledged, Coker's hereby sells, assigns, transfers and sets over to NK the Plant Variety Protection Certificates. Coker's further agrees, at no cost to it, to execute and deliver to NK, upon the request of NK, any further instrument of assignment that may be necessary to effectuate the transfer of each Plant Variety Protection Certificate.

IN WITNESS WHEREOF, Coker's has caused this instrument to be executed by its duly authorized representative as of the 20th day of July, 1988.

COKER'S PEDIGREED SEED COMPANY

By:
E. Joe Dahmer
President

STATE OF MINNESOTA)

COUNTY OF HENNEPIN)

On this 20 day of July, 1988, before me, a Notary Public in and for the County aforesaid, the undersigned officer, E. Joe Dahmer, personally appeared and acknowledged himself to be the President of Coker's Pedigreed Seed Co., and that he executed the foregoing instrument for the purposes therein.

WITNESS my hand and seal this 20 day of July, 1988.



Motary Public

Cotton Varieties, Continued

Variety Name	U.S. Plant Variety Certificate Number	Issue Date	Term (Yrs.)
Coker 3131	8100019	Sept. 24, 1981	18
Coker 208	8300082	Sept. 29, 1983	18
Coker 139	8700070	Dec. 18, 1987	18
	Soft Red Winter W	heat Varieties	
Coker 68-15	7200014	Mar. 6, 1974	17
Coker 68-19	7200015	Mar. 6, 1975	17
Coker 747	76TQ015	Sept. 20, 1978	17
Coker 762	8000152	Dec. 10, 1981	18
Coker 797	8000145	Dec. 10, 1981	18
Coker 916	8300036	Sept. 27, 1985	18
Coker 983	8400058	Dec. 31, 1980	18
McNair 701	7200038	Feb. 26, 1974	17
McNair 4823	7200037	Apr. 8, 1975	17
RHS 8232	8400136	Oct. 31, 1985	18
9227	8600009	May 31, 1988	18
9323	8600010	Apr. 29, 1988	18
McNair 1813	7500006	May 1, 1975	17
McNair 1003	7700084	Aug. 10, 1978	17
Coker 833	8800005(1)	Oct. 2, 1987 ⁽¹⁾	-
Coker 9733	8700159(1)	July 16, 1987 ⁽¹⁾	
Coker 9766	8700160(1)	July 17, 1987 ⁽¹⁾	- .
			. *

⁽¹⁾ Application number and filing date.

ASSIGNMENT OF FOREIGN AND DOMESTIC PATENTS AND PLANT VARIETY REGISTRATIONS AND PROTECTION CERTIFICATES

WHEREAS, NORTHRUP KING CO., a Delaware corporation, doing business at 7500 Olson Memorial Highway, Golden Valley, Minnesota 55427 ("ASSIGNOR"), owns, is licensed to or otherwise has the right to use the cotton seed lines listed in Schedule 1.2 hereto (the "Varieties") and in the germplasm related to the Varieties and in other cotton seed strains and germplasm in the United States and abroad (the "Germplasm") for which patents, plant variety protection certificates, breeder's rights certificates, seed registrations, seed certifications (collectively, the "Applications") have been filed in the United States and abroad.

AND WHEREAS, STONEVILLE PEDIGREED SEED COMPANY, a Mississippi corporation doing business at Old Leland Road, Stoneville, Mississippi 38776 ("ASSIGNEE") desires to acquire the entire right, title and interest in and to the Varieties and the Germplasm and the said Applications:

NOW THEREFORE, for good and valuable consideration, the receipt of which is hereby acknowledged, ASSIGNOR, does hereby acknowledge that ASSIGNOR has sold, assigned, transferred and set over, and by these presents does hereby sell, assign, transfer and set over, unto the said ASSIGNEE, its successors, legal representatives and assigns, the entire right, title and interest throughout the world in, to and under the said Applications, and the said Applications and all divisions, renewals and continuations thereof, and all Letters Patent of the United States which may be granted thereon and all reissues and extensions thereof, and all rights of priority under International Conventions and applications for Letters Patent which have been and may hereafter be filed for the Varieties or the Germplasm in any country or countries foreign to the United States, and all Letters Patent which may be granted for the Varieties or the Germplasm in any country or countries foreign to the United States and all extensions, renewals and reissues thereof; and ASSIGNOR hereby authorizes and requests the Commissioner of Patents of the United States, such official of the United States whose duty it is to issue plant variety protection certificates, and any Official of any country or countries foreign to the United States whose duty it is to issue patents, plant variety protection certificates, breeder's rights certificates, seed registrations and seed certifications to issue the same to the said ASSIGNEE, its successors, legal representatives and assigns, in accordance with the terms of this instrument.

CDMOBLR1.EXH (C1) 05/21/90

AND ASSIGNOR HEREBY covenants and agrees that ASSIGNOR will communicate to the said ASSIGNEE, its successors, legal representatives and assigns, any facts known to ASSIGNOR respecting the Varieties and the Germplasm and said Applications, and testify in any legal proceeding, sign all lawful papers, execute all divisional, continuing and reissue applications, make all rightful oaths and generally do everything possible to aid the said ASSIGNEE, its successors, legal representatives and assigns, to obtain and enforce proper patent protection for said Varieties and Germplasm in all countries.

IN TESTIMONY WHEREOF, ASSIGNOR hereunto sets its hand and seal this 30th day of May, 1990.

NORTHRUP KING CO., a Delaware corporation

By: May

Title: <u>Fresident + CEO</u>

State of Minnesota

ss.

County of Hennepin

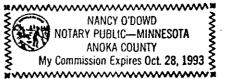
On this 30th day of May, in the year 1990, before me, the undersigned, a Notary Public for the State of Minnesota, personally appeared to me <u>Next Chulze</u>, personally known to me (or proved to me on the basis of satisfactory evidence) to be the person who executed the within instrument as <u>fresident + CFO</u> of Northrup King Co. and acknowledged to me that he executed it as a free act on behalf of Northrup King Co. with authority to do so.

(Notarial Seal)

Notary Public

My Commission Expires:

CDMOBLR1.EXH (C1) 05/21/90



SCHEDULE 1.2

Cotton Varieties

Variety Name	U. S. Plant Variety Certificate Number	Issue Date
Coker 130	Applied for	
Coker 139	8700070	12/18/87
Coker 208	8300082	09/29/83
Coker 304	7700024	12/21/78
Coker 308	None	
Coker 310	7100021	01/18/74
Coker 315	8000087	12/18/80
Coker 320	Applied for	
Coker 420	7900087	01/29/80
Coker 3131	8100019	09/24/81
Exp. 84-828	None	
Exp. 610-8907	None	
KC-311	Applied for	
KC-380	8700069	06/30/87
McNair 210	7100090	06/24/74
McNair 220	7600077	07/19/77
McNair 235	None	
McNair 511	7200095	05/21/74
McNair 612	7400023	03/06/74

ASSIGNMENT OF FOREIGN AND DOMESTIC PATENTS AND PLANT VARIETY REGISTRATIONS AND PROTECTION CERTIFICATES

WHEREAS, SANDOZ LTD., ("ASSIGNOR"), is the owner of all right, title and interest in the cotton seed lines listed in Schedule 1.2 hereto (the "Varieties") and in the germplasm related to the Varieties and in other cotton seed strains and germplasm which it has licensed to or otherwise given Northrup King Co., its wholly owned subsidiary, the right to use in the United States and abroad (the "Germplasm") for which patents, breeder's rights certificates, seed registrations, seed certifications (collectively, the "Applications") have been filed in the United States and abroad.

AND WHEREAS, STONEVILLE PEDIGREED SEED COMPANY, a Mississippi corporation doing business at Old Leland Road, Stoneville, Mississippi 38776 ("ASSIGNEE") desires to acquire the entire right, title and interest in and to the Varieties and the Germplasm and the said Applications:

NOW THEREFORE, for good and valuable consideration, the receipt of which is hereby acknowledged, ASSIGNOR, does hereby acknowledge that ASSIGNOR has sold, assigned, transferred and set over, and by these presents does hereby sell, assign, transfer and set over, unto the said ASSIGNEE, its successors, legal representatives and assigns, the entire right, title and interest throughout the world in, to and under the said Applications, and the said Applications and all divisions, renewals and continuations thereof, and all Letters Patent of the United States which may be granted thereon and all reissues and extensions thereof, and all rights of priority under International Conventions and applications for Letters Patent which have been and may hereafter be filed for the Varieties or the Germplasm in any country or countries foreign to the United States, and all Letters Patent which may be granted for the Varieties or the Germplasm in any country or countries foreign to the United States and all extensions, renewals and reissues thereof; and ASSIGNOR hereby authorizes and requests the Commissioner of Patents of the United States, and any Official of any country or countries foreign to the United States whose duty it is to issue patents, certificates, variety protection breeder's certificates, seed registrations and seed certifications to issue the same to the said ASSIGNEE, its successors, legal representatives and assigns, in accordance with the terms of this instrument.

AND ASSIGNOR HEREBY covenants and agrees that ASSIGNOR will communicate to the said ASSIGNEE, its successors, legal representa-

CDMOBL.EXH(C 1) 05/13/90 tives and assigns, any facts known to ASSIGNOR respecting the Varieties and the Germplasm and said Applications, and testify in any legal proceeding, sign all lawful papers, execute all divisional, continuing and reissue applications, make all rightful oaths and generally do everything possible to aid the said ASSIGNEE, its successors, legal representatives and assigns, to obtain and enforce proper patent protection for said Varieties and Germplasm in all countries.

IN TESTIMONY WHEREOF, ASSIGNOR hereunto sets its hand and seal this 30th day of May, 1990.

SANDOZ LTD.

(corporate seal)

BY: Edward C / Pole ATTORNEY IN FACT UNDER POWER Title: UF ATTORNEY DATED MAY SO, 1990

State of Minnesota

County of Hennepin

ss.

On this 30th day of May, in the year 1990, before me, the undersigned, a Notary Public for the State of Minnesota, personally appeared to me <u>Faward C. Reser</u>, personally known to me (or proved to me on the basis of satisfactory evidence) to be the person who executed the within instrument as the duly authorized agent of Sandoz Ltd. and acknowledged to me that he executed it as a free act on behalf of Sandoz Ltd. with authority to do so.

(Notarial Seal)

Notary Public

My Commission Expires:

NANCY O'DOWD

NOTARY PUBLIC—MINNESOTA

ANOKA COUNTY

My Commission Expires Oct. 28, 1993

SCHEDULE 1.2

Cotton Varieties

Variety Name	U. S. Plant Variety Certificate Number	Issue Date
Coker 130	Applied for	
Coker 139	8700070	12/18/87
Coker 208	8300082	09/29/83
Coker 304	7700024	12/21/78
Coker 308	None	
Coker 310	7100021	01/18/74
Coker 315	8000087	12/18/80
Coker 320	Applied for	•
Coker 420	7900087	01/29/80
Coker 3131	8100019	09/24/81
Exp. 84-828	None	
Exp. 610-8907	None	
KC-311	Applied for	
KC-380	8700069	06/30/87
McNair 210	7100090	06/24/74
McNair 220	7600077	07/19/77
McNair 235	None	
McNair 511	7200095	05/21/74
McNair 612	7400023	03/06/74